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**United States Patent** [19]

Garnier et al.

[11] **Patent Number:** 5,272,238[45] **Date of Patent:** Dec. 21, 1993**[54] PREPARATION PROCESS OF POLYMER, AND ORGANO-FERROMAGNETIC MATERIAL****[75] Inventors:** Francis Garnier; Abderrahim Yassar, both of Thiais, France**[73] Assignee:** Nippon Oil Co., Ltd., Tokyo, Japan**[21] Appl. No.:** 775,317**[22] Filed:** Oct. 15, 1991**[30] Foreign Application Priority Data**

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**[51] Int. Cl.<sup>5</sup>** ..... C08G 79/00**[52] U.S. Cl.** ..... 528/9; 528/397; 525/360; 525/377; 525/383**[58] Field of Search** ..... 528/9, 397; 525/360, 525/377, 383**[56] References Cited****U.S. PATENT DOCUMENTS**

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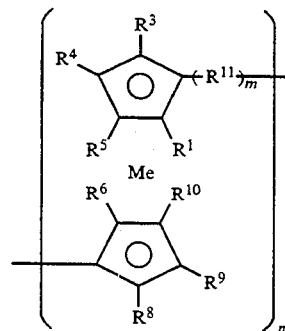
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The present invention provides a preparation process of a polymer which is characterized by reacting a specified metallocene which metal is a transition element of the group IV to group VIII in the periodic table, with an organic alkali metal compound and successively reacting with the compound represented by the formula  $Y-(R^{11})_m-X$  wherein  $R^{11}$  is a vinylene, phenylene, thienylene, and the like, X and Y are a hydrogen atom or halogen atom, and m is an integer of one or more, to obtain the polymer represented by the following formula:



wherein n is an integer of 2 or more; further provides an organo-ferromagnetic material obtained by oxidizing said polymer, and a novel conjugated polymer containing ferrocene units.

**3 Claims, No Drawings**